

Having thus described the invention, it is claimed:

1. An apparatus to pack welding wire in a storage container comprising:  
a laying head of a winding machine that packs wire loop in the storage container; and,  
a turntable having a storage container support to support the storage container and a  
5 rotating mechanism to rotate the storage container support while the welding wire is packed into said storage container in fanning out wire loops, said rotating mechanism rotating said storage container support in a forward direction and in a reverse direction for a period of time while said welding wire is packed into said storage container.
2. The apparatus as defined in claim 1, including a capstan to pull said welding wire and a rotatable laying head to receive said welding wire from the capstan and to direct the welding wire into the storage container.
3. The apparatus as defined in claim 1, wherein said rotating mechanism includes a drive motor that turns said storage container support, said rotating mechanism rotating said storage container support in the forward direction for a first time period and in the reverse direction for a second time period.
4. The apparatus as defined in claim 2, wherein said rotating mechanism includes a drive motor that turns said storage container support, said rotating mechanism rotating said storage container support in the forward direction for a first time period and in the reverse direction for a second time period.
5. The apparatus as defined in claim 3, wherein said first and second time periods are substantially the same.
6. The apparatus as defined in claim 4, wherein said first and second time periods are substantially the same.

7. The apparatus as defined in claim 3, wherein said first time period is different from said second time period.

8. The apparatus as defined in claim 4, wherein said first time period is different from said second time period.

9. The apparatus as defined in claim 3, wherein said rotating mechanism at least rotates said storage container support in at least in said forward direction, and then in said reverse direction, then again in said forward direction while said welding wire is packed into said storage container.

10. The apparatus as defined in claim 5, wherein said rotating mechanism at least rotates said storage container support in at least in said forward direction, and then in said reverse direction, then again in said forward direction while said welding wire is packed into said storage container.

11. The apparatus as defined in claim 7, wherein said rotating mechanism at least rotates said storage container support in at least in said forward direction, and then in said reverse direction, then again in said forward direction while said welding wire is packed into said storage container.

12. The apparatus as defined in claim 6, wherein said rotating mechanism at least rotates said storage container support in at least in said forward direction, and then in said reverse direction, then again in said forward direction while said welding wire is packed into said storage container.

13. The apparatus as defined in claim 8, wherein said rotating mechanism at least rotates said storage container support in at least in said forward direction, and then in said reverse direction, then again in said forward direction while said welding wire is packed into said storage container.

14. The apparatus as defined in claim 3, wherein said rotating mechanism rotates said storage container support at a substantially constant speed in said forward and said reverse direction.

15. The apparatus as defined in claim 3, wherein said rotating mechanism rotates at a speed in said forward direction that is different from a speed in said reverse direction.

16. The apparatus as defined in claim 12, wherein said rotating mechanism rotates said storage container support at a substantially constant speed in said forward and said reverse direction.

17. The apparatus as defined in claim 13, wherein said rotating mechanism rotates said storage container support at a substantially constant speed in said forward and said reverse direction.

18. The apparatus as defined in claim 12, wherein said rotating mechanism rotates at a speed in said forward direction that is different from a speed in said reverse direction.

19. The apparatus as defined in claim 13, wherein said rotating mechanism rotates at a speed in said forward direction that is different from a speed in said reverse direction.

20. The apparatus as defined in claim 3, wherein said rotating mechanism rotates said storage container support at a variable speed in said forward direction.

21. The apparatus as defined in claim 1, wherein said rotating mechanism rotates said storage container support at a variable speed in said reverse direction.

22. The apparatus as defined in claim 3, wherein said rotating mechanism rotates said storage container support in a repeating sequence of 0.1-100 rotations in said forward direction followed by 0.1-100 rotations in said reverse direction.

23. The apparatus as defined in claim 16, wherein said rotating mechanism rotates said storage container support in a repeating sequence of 0.1-100 rotations in said forward direction followed by 0.1-100 rotations in said reverse direction.

24. The apparatus as defined in claim 17, wherein said rotating mechanism rotates said storage container support in a repeating sequence of 0.1-100 rotations in said forward direction followed by 0.1-100 rotations in said reverse direction.

25. The apparatus as defined in claim 18, wherein said rotating mechanism rotates said storage container support in a repeating sequence of 0.1-100 rotations in said forward direction followed by 0.1-100 rotations in said reverse direction.

26. The apparatus as defined in claim 19, wherein said rotating mechanism rotates said storage container support in a repeating sequence of 0.1-100 rotations in said forward direction followed by 0.1-100 rotations in said reverse direction.

27. The apparatus as defined in claim 22, wherein a number of rotations in said forward direction is substantially the same as a number of rotations in said reverse direction.

28. The apparatus as defined in claim 1, wherein said laying head feeds said welding wire at a substantially constant rate into said storage container.

29. The apparatus as defined in claim 1, wherein said laying head feeds said welding wire at a variable rate into said storage container.

30. The apparatus as defined in claim 2, including a laying head controller to rotate said laying head in a forward direction for a period of time and a reverse direction for a period of time while said welding wire is packed into said storage container.

31. A method of packing welding wire into a storage container comprising:  
providing a welding wire packer having a laying head that packs wire loop in the storage container;

5 providing a storage container support to support said storage container as said welding wire is packed into said storage container in fanning out wire loops; and,  
varying an effective rotational speed of said storage container relative to said laying head at least once while said welding wire is packed into said storage container.

32. The method as defined in claim 31, wherein said welding wire packer includes a capstan that pulls said welding wire, said laying head being rotatable and designed to received said welding wire from the capstan and to direct said welding wire into said storage container.

33. The method as defined in claim 31, wherein said step of varying an effective rotational speed includes a drive motor that turns said storage container support in a forward direction for a first time period and rotating said storage container support in a reverse direction for a second time period.

34. The method as defined in claim 33, wherein said first and second time periods are the same.

35. The method as defined in claim 33, wherein said first time period is different from said second time period.

36. The method as defined in claim 34, wherein said storage container support is rotated at least in said forward direction, then in said reverse direction, and then again in said forward direction while said welding wire is packed into said storage container.

37. The method as defined in claim 35, wherein said storage container support is rotated at least in said forward direction, then in said reverse direction, and then again in said forward direction while said welding wire is packed into said storage container.

38. The method as defined in claim 33, wherein said storage container support is rotated at a substantially constant speed in said forward and said reverse direction.

39. The method as defined in claim 33, wherein said storage container support is rotated in said forward direction at a different speed from said rotation in said reverse direction.

40. The method as defined in claim 37, wherein said storage container support is rotated at a substantially constant speed in said forward and said reverse direction.

41. The method as defined in claim 33, wherein said storage container support is rotated at a variable speed in said forward direction.

42. The method as defined in claim 36, wherein said storage container support is rotated at a variable speed in said reverse direction.

43. The method as defined in claim 31, wherein said laying head feeds said welding wire at a substantially constant rate into said storage container.

44. The method as defined in claim 31, wherein said laying head feeds said welding wire at a variable rate into said storage container.

45. The method as defined in claim 33, wherein said storage container support is rotated in a repeating sequence of 0.1-100 rotations in said forward direction followed by 0.1-100 rotations in said reverse direction.

46. The method as defined in claim 45, wherein a number of rotations in said forward direction is substantially the same as a number of rotations in said reverse direction.

47. The method as defined in claim 32, including the step of rotating said rotatable laying head in a forward direction for a period of time and in a reverse direction for a period of time while said welding wire is packed into said storage container.

48. The method as defined in claim 39, wherein said storage container support is rotated in a repeating sequence of 0.1-100 rotations in said forward direction followed by 0.1-100 rotations in said reverse direction.

49. The method as defined in claim 48, wherein a number of rotations in said forward direction is substantially the same as a number of rotations in said reverse direction.